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FILE 'HOME' ENTERED AT 17:30:56 ON 22 APR 2008

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 17:31:21 ON 22 APR 2008

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STRUCTURE FILE UPDATES: 21 APR 2008 HIGHEST RN 1016194-13-0

DICTIONARY FILE UPDATES: 21 APR 2008 HIGHEST RN 1016194-13-0

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> s palladium/cn

L1 1 PALLADIUM/CN

=> d

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

RN 7440-05-3 REGISTRY

ED Entered STN: 16 Nov 1984

CN Palladium (CA INDEX NAME)

OTHER NAMES:

CN E 1010/W

CN IG 0218A

CN MPP 030

CN MPP 050

10/923,271

CN MPP 080  
CN P 50  
CN P 50 (metal)  
CN Palladex 600  
CN Palladium black  
CN Palladium element  
CN SFP 1001P  
MF Pd  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA,  
CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSChem,  
CSNB, DDFU, DETHERM\*, DRUGU, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,  
ENCOMPPAT2, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*,  
MSDS-OHS, PIRA, PROMT, RTECS\*, TOXCENTER, TULSA, ULIDAT, USPAT2,  
USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Pd

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

101891 REFERENCES IN FILE CA (1907 TO DATE)  
7450 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
102046 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
7.61	7.82

FILE 'CAPLUS' ENTERED AT 17:31:56 ON 22 APR 2008  
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FILE COVERS 1907 - 22 Apr 2008 VOL 148 ISS 17  
FILE LAST UPDATED: 21 Apr 2008 (20080421/ED)

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They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 7440-05-3/pur  
 102046 7440-05-3  
 278645 PUR/RL  
 L2 1377 7440-05-3/PUR  
 (7440-05-3 (L) PUR/RL)

=> s 12 and ibuprofen  
 11550 IBUPROFEN  
 L3 1 L2 AND IBUPROFEN

=> d ibib abs hitstr

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:965202 CAPLUS  
 DOCUMENT NUMBER: 141:395290  
 TITLE: Process for the adsorptive separation of palladium  
 catalyst from crude reaction mixtures of arylacetic  
 acids obtained by carbonylation  
 INVENTOR(S): Sava, Xavier; Roeper, Michael; Orgill, Colin; Cooper,  
 John  
 PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 13 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096747	A1	20041111	WO 2004-EP4047	20040416
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 20060252938	A1	20061109	US 2005-554247	20051025
PRIORITY APPLN. INFO.:			US 2003-466123P	P 20030428
			WO 2004-EP4047	W 20040416

OTHER SOURCE(S): MARPAT 141:395290  
 AB A process for the separation of palladium from aromatic carboxylic acid-containing crude reaction mixts. (e.g., ibuprofen) obtained by the palladium-catalyzed carbonylation of arylalkanols [e.g., 1-(4-isobutylphenyl)ethanol] is achieved by adsorption of the palladium on solid adsorbents (e.g., activated carbon) where the adsorption is carried

out in the absence of a reducing agents for palladium and at a temperature where

the crude reaction mixture is molten.  
 IT 7440-05-3P, Palladium, preparation  
 RL: CAT (Catalyst use); NUU (Other use, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)  
 (process for the adsorptive separation of palladium catalyst from crude reaction mixts. of arylacetic acids obtained by carbonylation)  
 RN 7440-05-3 CAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s naproxen or ketoprofen or flurbiprofen or indoprofen or suprofen or hexaprofen or piroprofen or fenoprofen or cicloprofen or mexoprofen or benoxaprofen or carprofen

6566 NAPROXEN  
 5317 KETOPROFEN  
 3267 FLURBIPROFEN  
 489 INDOPROFEN  
 725 SUPROFEN  
 5 HEXAPROFEN  
 333 PIRPROFEN  
 1348 FENOPROFEN  
 59 CICLOPROFEN  
 3 MEXOPROFEN  
 497 BENOXAPROFEN  
 662 CARPROFEN

L4 12884 NAPROXEN OR KETOPROFEN OR FLURBIPROFEN OR INDOPROFEN OR SUPROFEN OR HEXAPROFEN OR PIRPROFEN OR FENOPROFEN OR CICLOPROFEN OR MEXOPROFEN OR BENOXAPROFEN OR CARPROFEN

=> s 14 and 12

L5 1 L4 AND L2

=> s 12 and arylacetic acid

560 ARYLACETIC  
 4567237 ACID  
 273 ARYLACETIC ACID  
 (ARYLACETIC(W)ACID)

L6 0 L2 AND ARYLACETIC ACID

=> s 12 and aryl acetic acid

227141 ARYL  
 260319 ACETIC  
 4567237 ACID  
 35 ARYL ACETIC ACID  
 (ARYL(W)ACETIC(W)ACID)

L7 0 L2 AND ARYL ACETIC ACID

=> s 12 and aryl?

10/923,271

317904 ARYL?  
L8 18 L2 AND ARYL?  
=> s 18 and acetic acid  
260319 ACETIC  
4567237 ACID  
226707 ACETIC ACID  
(ACETIC(W)ACID)  
L9 0 L8 AND ACETIC ACID

=> s 18 and acid  
4567237 ACID  
L10 8 L8 AND ACID

=> d 1-8 ibib abs hitstr

L10 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:66999 CAPLUS  
DOCUMENT NUMBER: 146:274004  
TITLE: Recyclable and ligandless Suzuki coupling catalyzed by  
carbon nanotube-supported palladium nanoparticles  
synthesized in supercritical fluid  
AUTHOR(S): Pan, Horng-Bin; Yen, Clive H.; Yoon, Byunghoon; Sato,  
Masaki; Wai, Chien M.  
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow,  
ID, USA  
SOURCE: Synthetic Communications (2006), 36(23), 3473-3478  
CODEN: SYNCAV; ISSN: 0039-7911  
PUBLISHER: Taylor & Francis, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 146:274004  
AB Carbon nanotube-supported palladium nanoparticles prepared by a supercrit.  
fluid deposition method show high activities for catalyzing Suzuki  
coupling reactions, and the catalysts can be recycled and reused at least  
six times without losing activity.  
IT 7440-05-3P, Palladium, preparation  
RL: CAT (Catalyst use); PUR (Purification or recovery); SPN  
(Synthetic preparation); PREP (Preparation); USES (Uses)  
(deposited on multi-walled carbon nanotubes; Suzuki coupling reaction  
of Ph boronic acid with aryl halides to biaryls  
using carbon nanotube-supported palladium nanoparticles catalyst  
obtained in supercrit. fluid)  
RN 7440-05-3 CAPLUS  
CN Palladium (CA INDEX NAME)

Pd

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:637724 CAPLUS  
DOCUMENT NUMBER: 146:316548

TITLE: Recoverable palladium(0) on poly(vinylpyrrolidone) catalyzed ligand-free Suzuki reaction in water

AUTHOR(S): Wang, Lei; Li, Pin-Hua

CORPORATE SOURCE: Department of Chemistry, Huaibei Coal Teacher College, Huaibei, Anhui, 235000, Peop. Rep. China

SOURCE: Chinese Journal of Chemistry (2006), 24(6), 770-774  
CODEN: CJOCEV; ISSN: 1001-604X

PUBLISHER: Shanghai Institute of Organic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:316548

AB In the absence of any ligand, a recoverable palladium(0) on poly(vinylpyrrolidone) (PVP) catalyzed Suzuki reaction of aryl iodide and bromide with potassium aryltrifluoroborate was developed. The reaction conditions involved the use of water as the solvent, potassium carbonate as the base, and PVP supported palladium metal colloid as the catalyst. The palladium metal could be recovered and recycled for eight consecutive trials without significant loss of its activity.

IT 7440-05-3P, Palladium, preparation  
RL: CAT (Catalyst use); PUR (Purification or recovery); PREP (Preparation); USES (Uses)  
(supported on poly(vinylpyrrolidone), recoverable; ligand-free Suzuki reaction of aryl halides with potassium aryltrifluoroborates in water using poly(vinylpyrrolidone)-supported palladium(0) catalyst)

RN 7440-05-3 CAPLUS

CN Palladium (CA INDEX NAME)

Pd

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1080719 CAPLUS

DOCUMENT NUMBER: 142:57220

TITLE: Methods to remove metallic impurities from polymers to improve optoelectronic performance of devices fabricated from these polymers

INVENTOR(S): Xiao, Steven Shuyong; Qiu, Chunong; Qiu, Cindy Xing

PATENT ASSIGNEE(S): Organic Vision Inc., Can.

SOURCE: U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040254336	A1	20041216	US 2003-461909	20030616
US 6894145	B2	20050517		
PRIORITY APPLN. INFO.:			US 2003-461909	20030616

AB The methods involve dissolving the polymer in a suitable solvent, adding a scavenger or chelating agent, mixing to form a scavenger- or chelating agent-containing phase, and finally separating the scavenger- or chelating agent-containing phase from the polymer phase. The polymers include polyarylenes, polyarylenevinyls, polyaryleneethynylene, polyfluorenes, polyanilines, polythiophenes, polypyrroles, and any conjugated copolymers. Preferable scavengers have functional groups which can react with metallic species and form a coordination compound that is not soluble in a selected solvent. The selected scavenger can be used in a free stand form or carried by either organic or inorg. media.

IT 7440-05-3P, Palladium, preparation  
 RL: PUR (Purification or recovery); PREP (Preparation)  
 (methods to remove metallic impurities from polymers to improve optoelectronic performance of devices fabricated from these polymers)

RN 7440-05-3 CAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on SIN

ACCESSION NUMBER: 2004:965202 CAPLUS

DOCUMENT NUMBER: 141:395290

TITLE: Process for the adsorptive separation of palladium catalyst from crude reaction mixtures of arylacetic acids obtained by carbonylation

INVENTOR(S): Sava, Xavier; Roeper, Michael; Orgill, Colin; Cooper, John

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCI Int. Appl., 13 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096747	A1	20041111	WO 2004-EP4047	20040416
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 20060252938	A1	20061109	US 2005-554247	20051025
PRIORITY APPLN. INFO.:			US 2003-466123P	P 20030428

WO 2004-EP4047

W 20040416

OTHER SOURCE(S): MARPAT 141:395290

AB A process for the separation of palladium from aromatic carboxylic acid-containing crude reaction mixts. (e.g., ibuprofen) obtained by the palladium-catalyzed carbonylation of arylalkanols [e.g., 1-(4-isobutylphenyl)ethanol] is achieved by adsorption of the palladium on solid adsorbents (e.g., activated carbon) where the adsorption is carried out in the absence of a reducing agents for palladium and at a temperature

where

the crude reaction mixture is molten.

IT 7440-05-3P, Palladium, preparation

RL: CAT (Catalyst use); NUU (Other use, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)

(process for the adsorptive separation of palladium catalyst from crude reaction mixts. of arylacetic acids obtained by carbonylation)

RN 7440-05-3 CAPLUS

CN Palladium (CA INDEX NAME)

Pd

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on SIN

ACCESSION NUMBER: 2002:792265 CAPLUS

DOCUMENT NUMBER: 137:294772

TITLE: Recovery of carbonylation catalysts from diaryl carbonate-containing solutions without deactivation

INVENTOR(S): Ohashi, Kenji; Nagashima, Ryoichi; Zenri, Terunobu

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002302468	A	20021018	JP 2001-105624	20010404
PRIORITY APPLN. INFO.:			JP 2001-105624	20010404

OTHER SOURCE(S): MARPAT 137:294772

AB In recovering catalysts from solns. containing CO(OR)2 [R = (un)substituted C6-15 aryl] prepared by oxidative carbonylation of ROH (R = same as above) with CO and mol. O in the presence of the catalysts and solvents, the reaction mixts. are subjected to flash separation to remove H2O by adiabatic vaporization and the residues are mixed with the same solvents used in the carbonylation to selectively crystallize the diaryl carbonates. The mother liqs. containing the catalysts are returned to the carbonylation reactor for reuse. Thus, PhOH was autoclaved with CO, O, Pd acetylacetonate (I), Mn acetylacetonate (II), heteropoly acid (III), and Bu4NBr at 80° for 9 h in MeOCMe3 and the reaction mixture was introduced to a flash tank to remove H2O. The solvent was added to



the residue, cooled, and filtered to give a mother liquid, in which 98.9% I, 89.1% II, 84.6% III, and 98.8% Bu4NBr were recovered.

IT 7440-05-3P, Palladium, preparation  
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process);  
 PUR (Purification or recovery); PYP (Physical process); PREP  
 (Preparation); PROC (Process); USES (Uses)  
 (recovery of carbonylation catalysts from diaryl carbonate-containing  
 solns. without deactivation)

RN 7440-05-3 CAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

L10 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:654405 CAPLUS  
 DOCUMENT NUMBER: 133:222445  
 TITLE: Preparation of N-alkylarylamines  
 INVENTOR(S): Nishimura, Takeshi; Takeda, Fuminori; Wada, Masaru  
 PATENT ASSIGNEE(S): Mitsui Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000256278	A	20000919	JP 1999-65726	19990312
PRIORITY APPLN. INFO.:			JP 1999-65726	19990312
OTHER SOURCE(S):			CASREACT 133:222445	

AB Title compds. are prepared by reductive alkylation of arylamines or aromatic nitro compds. with aldehydes in the presence of noble metal catalysts and the catalysts can be recovered and reused. Thus, reaction of 3-aminobenzoic acid with 37% aqueous HCHO in MeOH in the presence of 5% Pd/C at 5 kg/cm<sup>2</sup> H<sub>2</sub> and 50° to give 95.5% 3-dimethylaminobenzoic acid, the catalyst was separated and treated with 2% aqueous NaOH for reuses.

IT 7440-05-3P, Palladium, preparation  
 RL: CAT (Catalyst use); PUR (Purification or recovery); PREP  
 (Preparation); USES (Uses)  
 (preparation of N-alkylarylamines by reductive alkylation)

RN 7440-05-3 CAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

L10 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:169318 CAPLUS  
 DOCUMENT NUMBER: 124:207908

TITLE: Separation and recovery of palladium and silver  
 INVENTOR(S): Inoe, Katsutoshi  
 PATENT ASSIGNEE(S): Shoei Kagaku Kogyo Kk, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07331349	A	19951219	JP 1994-157782	19940607

PRIORITY APPLN. INFO.: JP 1994-157782 19940607  
 OTHER SOURCE(S): MARPAT 124:207908  
 AB Aqueous HNO<sub>3</sub> solns. containing Pd and Ag are brought into contact with extraction agents containing R1R2R3N (R1 = C1-25 linear or side chain-having alkyl, alkoxy, aryl, alkaryl; R2, R3 = H, R1) or R4R5R6R7N+.A- (R4-7 = R1; A- = monovalent inorg. anion) and R8OH (R8 = C8-16 linear or side chain-having alkyl) or (R9O)(R10O)(R11O)PO (R9-11 = C4-8 linear or side chain-having alkyl) to selectively extract Pd. The process gives low loss and base metal contamination.  
 IT 7440-05-3P, Palladium, preparation  
 RL: PUR (Purification or recovery); PREP (Preparation)  
 (separation and recovery of)  
 RN 7440-05-3 CAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

L10 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:99385 CAPLUS  
 DOCUMENT NUMBER: 110:99385  
 ORIGINAL REFERENCE NO.: 110:16375a,16378a  
 TITLE: Solvent extraction of palladium  
 INVENTOR(S): Okuda, Akihiko; Ichiishi, Tomoshi  
 PATENT ASSIGNEE(S): Tanaka Noble Metal Industrial Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63286528	A	19881124	JP 1987-120896	19870518

PRIORITY APPLN. INFO.: JP 1987-120896 19870518  
 OTHER SOURCE(S): MARPAT 110:99385  
 AB Pd is extracted from a Pd-containing HCl solution by an organic phase containing a C6-15 alc. and a water-insol. nonvolatile solvent having functional groups of

R1SR2 and SPR3R4R5, where R1-5 is alkyl, aryl, or aralkyl group.  
 Thus, aqueous 3N HCl containing 10 g Pd/L and metallic impurities was  
 extracted with  
 an organic phase containing 20 volume% each of dihexyl sulfide and 2-ethylhexyl  
 alc. and 20 g/L of triisobutylphosphine sulfide. The extraction yielded no  
 ppts., but it did in the absence of 2-ethylhexyl alc.  
 IT 7440-05-3P, Palladium, preparation  
 RL: PUR (Purification or recovery); PREP (Preparation)  
 (recovery of, from acid solution, by solvent extraction)  
 RN 7440-05-3 CAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

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(FILE 'HOME' ENTERED AT 17:30:56 ON 22 APR 2008)

FILE 'REGISTRY' ENTERED AT 17:31:21 ON 22 APR 2008

L1 1 S PALLADIUM/CN

FILE 'CAPLUS' ENTERED AT 17:31:56 ON 22 APR 2008

L2 1377 S 7440-05-3/PUR  
 L3 1 S L2 AND IBUPROFEN  
 L4 12884 S NAPROXEN OR KETOPROFEN OR FLURBIPROFEN OR INDOPROFEN OR SUPRO  
 L5 1 S L4 AND L2  
 L6 0 S L2 AND ARYLACETIC ACID  
 L7 0 S L2 AND ARYL ACETIC ACID  
 L8 18 S L2 AND ARYL?  
 L9 0 S L8 AND ACETIC ACID  
 L10 8 S L8 AND ACID

=&gt; s l4 and carbony?

211791 CARBONY?

L11 183 L4 AND CARBONY?

=&gt; s l11 and aryl? and (ester or acid)

317904 ARYL?

619182 ESTER

4567237 ACID

L12 50 L11 AND ARYL? AND (ESTER OR ACID)

=&gt; s l12 and adsor?

632964 ADSOR?

L13 1 L12 AND ADSOR?

=&gt; d ibib abs hitstr

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:965202 CAPLUS

DOCUMENT NUMBER: 141:395290

TITLE: Process for the adsorptive separation of

palladium catalyst from crude reaction mixtures of  
 arylacetic acids obtained by  
 carbonylation

INVENTOR(S): Sava, Xavier; Roeper, Michael; Orgill, Colin; Cooper, John

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 13 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096747	A1	20041111	WO 2004-EP4047	20040416
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 20060252938	A1	20061109	US 2005-554247	20051025
PRIORITY APPLN. INFO.:			US 2003-466123P	P 20030428
			WO 2004-EP4047	W 20040416

OTHER SOURCE(S): MARPAT 141:395290

AB A process for the separation of palladium from aromatic carboxylic acid-containing crude reaction mixts. (e.g., ibuprofen) obtained by the palladium-catalyzed carbonylation of arylalkanols [e.g., 1-(4-isobutylphenyl)ethanol] is achieved by adsorption of the palladium on solid adsorbents (e.g., activated carbon) where the adsorption is carried out in the absence of a reducing agents for palladium and at a temperature where the crude reaction mixture is molten.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 112 and carbon  
 1357530 CARBON  
 L14 13 L12 AND CARBON

=> d 1-13 ibib abs hitstr

L14 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1065801 CAPLUS

DOCUMENT NUMBER: 145:397236

TITLE: Palladium catalytic carbonylation process  
 for the preparation of 2-arylpionic acids  
 from 1-arylethanol and carbon  
 dioxide

INVENTOR(S): Chaudhari, Raghunath Vitthal; Abdul, Seayad; Seayad, Jayasree  
 PATENT ASSIGNEE(S): Council of Scientific & Industrial Research, India  
 SOURCE: Indian, 25 pp.  
 CODEN: INXXAP  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 191417	A1	20031129	IN 1999-DE685	19990505

PRIORITY APPLN. INFO.: IN 1999-DE685 19990505

OTHER SOURCE(S): CASREACT 145:397236; MARPAT 145:397236  
 AB 2-Arylpropionic acids R5R4CR3CR2R1CO2H [R1 = (un)substituted aryl, (un)substituted naphthyl; R2-R5 = H, (un)substituted aryl, (un)substituted arylalkyl, (un)substituted cycloaliph.] are prepared in high yield and selectivity by the carbonylation of 1-arylethanol R5R4CR3CR2R1OH [e.g., 1-(4-isobutylphenyl)ethanol] in the presence of a carbonylation catalyst system comprising an alkali metal halide (e.g., LiCl), an organic sulfonic acid (e.g., p-toluenesulfonic acid), 1-6 volume% water, and a Pd0 complex or a Pd2+ complex [e.g., PdCl2(PPh3)2], and a solvent (e.g., 2-butanone), with carbon monoxide under homogeneous conditions at 30-130°/50-1500 psig for 0.3-2 h, flushing the reaction vessel with inert gas, removing the solvent by conventional methods, separating the catalyst, and isolating 2-arylpropionic acid (e.g., ibuprofen).

L14 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 2006:1050338 CAPLUS  
 DOCUMENT NUMBER: 145:397235  
 TITLE: Catalytic carbonylation and hydrolysis process for the preparation of 2-arylpropionic acids from 1-aryl-1-haloethanes  
 INVENTOR(S): Chaudhari, Raghunath Vitthal; Majeed, Seayad Abdul; Seayad, Jayasree  
 PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India  
 SOURCE: Indian, 24 pp.  
 CODEN: INXXAP  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 191488	A1	20031206	IN 1999-DE683	19990505

PRIORITY APPLN. INFO.: IN 1999-DE683 19990505

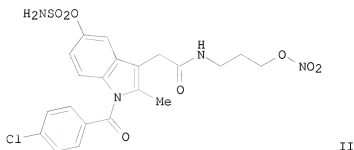
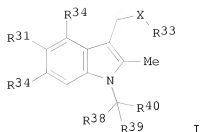
OTHER SOURCE(S): CASREACT 145:397235; MARPAT 145:397235  
 AB 2-Arylpropionic acids R4C(R3)(R5)C(R1)(R2)CO2H [I; R1 = (un)substituted aryl, (un)substituted naphthyl; R2-R5 = H, (un)substituted alkyl, (un)substituted aryl, (un)substituted arylalkyl, (un)substituted cycloaliph.; e.g., ibuprofen] are prepared in high yield and selectivity which comprises the

carbonylation and subsequent hydrolysis of arylalkyl halides R4C(R3)(R5)C(R1)(R2)X [X = Cl, Br, I; e.g., 1-(4-isobutylphenyl)ethyl chloride] in the presence of an organic sulfonic acid (e.g., p-toluenesulfonic acid), water, a palladium catalyst, and halide promoter (e.g., LiCl) in the range of 5-500 mol per mol of catalyst in an organic solvent such as ketones (e.g., 2-butanone) or cyclic ethers in a carbon monoxide atmosphere under homogeneous conditions at 30-130°/50-1500 psig for 0.3-4 h, then cooling the reaction mixture to ambient temperature, flushing the reaction vessel with inert gas, removing the solvent by conventional methods, separating the catalyst, and isolating I.

L14 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2006:975669 CAPLUS  
 DOCUMENT NUMBER: 145:356642  
 TITLE: Preparation of 2-methylindoles as cyclooxygenase-2 selective inhibitors  
 INVENTOR(S): Wey, Shiow-Jyi; Garvey, David S.; Fang, Xinqin; Richardson, Stewart K.  
 PATENT ASSIGNEE(S): NitroMed, Inc., USA  
 SOURCE: PCT Int. Appl., 122pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006099416	A1	20060921	WO 2006-US9127	20060313
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRIORITY APPLN. INFO.:			US 2005-660436P	P 20050311
OTHER SOURCE(S):			MARPAT 145:356642	

GI



AB The invention describes compns. and kits comprising 2-methylindole cyclooxygenase 2 (COX-2) selective inhibitors I [R31 = alkoxy, OH, aminosulfonyloxy; R33 = H, alkylcarbonyl, NO<sub>2</sub>, etc.; R34 = H, halo; R38, R39 = H or R38 and R39 when taken together with the carbon atom to which they are attached form a carbonyl group; R40 = cycloalkyl or aryl; X = CH<sub>2</sub>O, C(O)O, CH<sub>2</sub>P(O)(OH)O, etc.] or pharmaceutically acceptable salts thereof, and, optionally, at least one nitric oxide enhancing compound and/or at least one therapeutic agent. The compns. I can be optionally substituted with at least one nitric oxide enhancing group. E.g., a 3-step synthesis of II, starting from indomethacin, was given. II showed 84% inhibition of COX-2 at 1  $\mu$ M. The invention also provides methods for (a) treating inflammation, pain and fever; (b) treating gastrointestinal disorders and/or improving the gastrointestinal properties of COX-2 selective inhibitors; (c) facilitating wound healing; (d) treating renal and/or respiratory toxicities; (e) treating disorders resulting from elevated levels of cyclooxygenase-2; (f) improving the cardiovascular profile of COX-2 selective inhibitors; (g) treating diseases resulting from oxidative stress; (h) treating endothelial dysfunctions; (j) treating diseases caused by endothelial dysfunctions; (k) treating inflammatory disease states and/or disorders; (l) treating ophthalmic disorders; and (m) treating peripheral vascular diseases. The nitric oxide enhancing groups are organic nitrites, organic nitrosols, nitrosothiols, thionitrates, thionitrates, NONOates, heterocyclic nitric oxide donors and/or nitroxides. The heterocyclic nitric oxide donors are furoxans, sydnonimines, oxatriazole-5-ones and/or oxatriazole-5-imines.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2008 ACS ON STN  
ACCESSION NUMBER: 2006:691081 CAPLUS

DOCUMENT NUMBER: 145:145264  
 TITLE: An improved process for the preparation of 2-arylpropionic acid  
 INVENTOR(S): Chaudhari, Raghunath Vitthal; Seayad, Jayashree; Mazed, Seayad Abdul  
 PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India  
 SOURCE: Indian, 33 pp.  
 CODEN: INXXAP  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 192841	A1	20040522	IN 1999-DE570	19990415
PRIORITY APPLN. INFO.:			IN 1999-DE570	19990415

OTHER SOURCE(S): CASREACT 145:145264; MARPAT 145:145264

AB An improved process for the preparation of 2-arylpropionic acids via carbonylation of the corresponding alc. is described. Reaction conditions and components include a halide source selected from the group consisting of halide salts or hydrohalic acid in range of 5 to 500 mol, water in the concentration range of 1 to 6% (volume/volume), heterogeneous ruthenium, cobalt or nickel metal as a catalyst wherein the concentration of metal is 1 mol of metal for 500 to 50000 mol of alc. and a phosphine ligand in the range of 20 to 50 mol in an organic solvent such as herein described in the carbon monoxide atmospheric in an autoclave at a temperature ranging between 30 to 130°C, for a period ranging between 50 to 1500 psig, cooling the reaction mixture to ambient temperature, flushing the autoclave with nitrogen, separating the catalyst, removing the solvent by conventional methods and isolating the 2-aryl propionic acid derivative. Several examples for the conversion of 1-(4'-isobutylphenyl)ethanol to ibuprofen are included.

L14 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:553802 CAPLUS

DOCUMENT NUMBER: 145:7869

TITLE: Catalytic carbonylation process for the preparation of 2-arylpropionic acids from 1-arylethanol and carbon monoxide

INVENTOR(S): Chaudhari, Raghunath Vitthal; Abdul, Seayad; Seayad, Jayasree

PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India

SOURCE: Indian, 34 pp.

CODEN: INXXAP

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 191096	A1	20030920	IN 1999-DE684	19990505
PRIORITY APPLN. INFO.:			IN 1999-DE684	19990505

OTHER SOURCE(S): CASREACT 145:7869; MARPAT 145:7869



AB A catalytic carbonylation process for the preparation of 2-arylpropionic acids (e.g., ibuprofen) from arylethanol [e.g., 1-(4-isobutylphenyl)ethanol] and carbon monoxide and a catalyst system based on Pd (e.g., 1% Pd/C) or Pt and utilizing a phosphine ligand (e.g., triphenylphosphine), a halide salt (e.g., LiCl), and a protic acid (e.g., p-toluenesulfonic acid) is described.

L14 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1332124 CAPLUS

DOCUMENT NUMBER: 144:69622

TITLE: Process for the preparation of 2-aryl propionic acids by carbonylation of aralkyl alcohols and halides or hydrocarboxylation of aryl olefins in the presence of palladium catalyst, a halide promoter, and an organic acid

INVENTOR(S): Chaudhari, Raghunath Vitthal; Seayad, A.; Seayad, Jayasree

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont. of U.S. Ser. No. 628,158, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

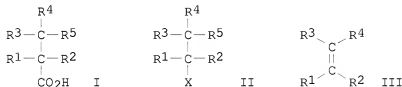
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050283020	A1	20051222	US 2005-149804	20050610
PRIORITY APPLN. INFO.:			US 2000-628158	B1 20000728
OTHER SOURCE(S):			CASREACT 144:69622; MARPAT 144:69622	

GI



AB The invention relates to a process for the preparation of the known non-steroidal antiinflammatory agents 2-arylpropionic acids I by carbonylation of an aryl alc. or aryl halide II or hydrocarboxylation of an aryl olefin III in the presence of a halide promoter, an organic acid, and a palladium catalyst in an organic solvent. In compds. I, II, and III, R1 is (un)substituted aryl or (un)substituted naphthyl; R2, R3, R4, and R5 are independently selected from H, (un)substituted alkyl, (un)substituted aryl, (un)substituted arylalkyl, and (un)substituted

cycloalkyl; and X is OH, chloride, bromide, or iodide. The advantages of the process include high reaction rates, high selectivity to 2-aryl propionic acids under milder reaction conditions, and avoidance of the use of hazardous chems. like cyanides. For example, ibuprofen was prepared, in 99% selectivity, by carbonylation of 1-(4-isobutylphenyl)ethanol (p-IBPE) in the presence of 0.2 mol% of dichlorobis(triphenylphosphine)palladium, 20 mol% of p-toluenesulfonic acid, and 20 mol% of LiCl in Me Et ketone at 115°, with 99% conversion of p-IBPE. Naproxen was prepared, in 98% selectivity, by hydrocarboxylation of (6-methoxy-2-naphthyl)ethene in the presence of PdCl<sub>2</sub>(PPh<sub>3</sub>)<sub>2</sub>, p-TSA, and LiCl in Me Et ketone at 115°, with 99% conversion.

L14 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 2004:965202 CAPLUS

DOCUMENT NUMBER: 141:395290

TITLE: Process for the adsorptive separation of palladium catalyst from crude reaction mixtures of arylacetic acids obtained by carbonylation

INVENTOR(S): Sava, Xavier; Roeper, Michael; Orgill, Colin; Cooper, John

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096747	A1	20041111	WO 2004-EP4047	20040416
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 20060252938	A1	20061109	US 2005-554247	20051025
PRIORITY APPLN. INFO.:			US 2003-466123P	P 20030428
			WO 2004-EP4047	W 20040416

OTHER SOURCE(S): MARPAT 141:395290

AB A process for the separation of palladium from aromatic carboxylic acid-containing crude reaction mixts. (e.g., ibuprofen) obtained by the palladium-catalyzed carbonylation of arylalkanols [e.g., 1-(4-isobutylphenyl)ethanol] is achieved by adsorption of the palladium on solid adsorbents (e.g., activated carbon) where the adsorption is carried out in the absence of a reducing agents for palladium and at a temperature where the crude reaction mixture is molten.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:515465 CAPLUS

DOCUMENT NUMBER: 141:54204

TITLE: Preparation of chiral aryl ketones in the treatment of neutrophil-dependent inflammatory diseases

INVENTOR(S): Allegrretti, Marcello; Bertini, Riccardo; Cesta, Maria Candida; Bizzarri, Cinzia; Colotta, Francesco

PATENT ASSIGNEE(S): Dompe S.P.A., Italy

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052830	A1	20040624	WO 2003-EP13946	20031209
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2507765	A1	20040624	CA 2003-2507765	20031209
AU 2003289993	A1	20040630	AU 2003-289993	20031209
EP 1581474	A1	20051005	EP 2003-782344	20031209
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1732145	A	20060208	CN 2003-80107685	20031209
JP 2006509022	T	20060316	JP 2004-558041	20031209
US 20060247297	A1	20061102	US 2003-537824	20031209
NO 2005003086	A	20050623	NO 2005-3086	20050623
PRIORITY APPLN. INFO.:			EP 2002-27453	A 20021210
			WO 2003-EP13946	W 20031209

OTHER SOURCE(S): MARPAT 141:54204

AB (R,S)-1-arylethyl ketone compds. of formula ArCH(Me)COCH(Ra)Rb and their single (R) and (S) enantiomers [wherein Ar = aryl; Ra, Rb = H, linear or branched C1-6 alkyl, Ph,  $\alpha$ - or  $\beta$ -naphthyl, 2-, 3-, or 4-pyridyl, C1-4-alkylphenyl, C1-4 alkyl( $\alpha$ - or  $\beta$ -naphthyl), C1-4 alkyl(2-, 3-, or 4-pyridyl), cyano, carboxamide, CO2H or its esters of formula CO2R" (wherein R" = the residue of linear or branched C1-6 aliphatic alc.), a phosphonate of formula PO(OR')2 (wherein R' is as defined above), a group of formula di-X-(CH2)n-Z (wherein X = CO, SO, SO2; Z = H, tert-Bu, iso-Pr, CO2R', cyano, Ph,  $\alpha$ - or  $\beta$ -naphthyl, 2-, 3-, or 4-pyridyl, C3-6 cycloalkyl, NH-BOC, NH2; n = 0 or an integer from 1 to 3; or Ra and Rb, with the carbon atom to which they are bound, form a cyclic residue 2,2-di(R')-substituted 4,6-dioxo-1,3-dioxane; wherein R' = Me or Et, or the two groups R' form a

cyclohexane or cyclopentane ring)] are prepared These compds. are useful in therapy as drugs for the treatment of diseases mediated by infiltrations of neutrophils induced by IL-8, such as psoriasis, rheumatoid arthritis, ulcerative colitis, acute respiratory distress syndrome (ARDS), idiopathic fibrosis, glomerulonephritis, bullous pemphigo and for the prevention and the treatment of damages caused by ischemia and reperfusion. Thus, (R)-(-)-ibuprofen (2 g, 9.69 mmol) was dissolved in 4 mL SOCl<sub>2</sub> and refluxed for 4 h to give, after evaporation, (R)-2-(4-isobutylphenyl)propanoyl chloride as an oily yellow residue (2.34 g; 9.34 mmol). The oil was dissolved in dry 3 mL CH<sub>2</sub>Cl<sub>2</sub> and the resulting solution was added to a solution of 2,2-dimethyl-1,3-dioxan-2,5-dione (Meldrum's acid) (1.35 g; 9.34 mmol) and pyridine (1.83 mL; 22.9 mmol) in dry CH<sub>2</sub>Cl<sub>2</sub> (7.5 mL) previously cooled to 0-5° with a water/ice bath, and left for 1 h at this temperature and then for another hour at room temperature to give,

after

workup, 2.69 g (R)-(+)-5-[2-(4-isobutylphenyl)propion-1-yl]-2,2-dimethyl-1,3-dioxan-4,6-dione. The latter compound was dissolved in dioxane (10 mL), treated with glacial acetic acid (0.84 mL) and H<sub>2</sub>O (0.13 mL), and heated to the reflux temperature for 3 h to give, after cooling and

evaporation

of the solvents and purification by means of flash chromatog.

(R)-(-)-3-(4-isobutylphenyl)butan-2-one as a pale yellow oil (0.97 g; 4.75 mmol).

L14 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:961179 CAPLUS

DOCUMENT NUMBER: 140:16565

TITLE: Improved process for the preparation of 2-aryl propionic acids by carbonylation of aralkyl alcohols and halides or hydrocarboxylation of an aryl olefins in the presence of heterogeneous metal-ligand catalyst, a halide source, a protonic acid and water

INVENTOR(S): Chaudhari, Raghunath Vitthal; Seayad, Jayasree; Seayad, Abdul

PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India U.S., 38 pp.

SOURCE: CODEN: USXXAM

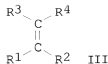
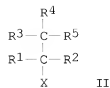
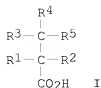
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6660883	B1	20031209	US 2000-662035	20000914
PRIORITY APPLN. INFO.:			US 2000-662035	20000914
OTHER SOURCE(S):		CASREACT 140:16565; MARPAT 140:16565		
GI				



AB The invention is directed to an improved process for the preparation of the known non-steroidal antiinflammatory agents 2-aryl propionic acids I by carbonylation of an aryl alc. or aryl halide II or hydrocarboxylation of an aryl olefin III in the presence of a halide source, a protonic acid, water and a catalyst system comprising of a heterogeneous metal and a phosphine ligand in an organic solvent [wherein R1 = (un)substituted Ph, naphthyl; R2, R3, R4, R5 = independently H, (un)substituted methyl; X = halo, OH]. The advantages include high reaction rates, high selectivity to 2-aryl propionic acids under milder reaction conditions, and simple and efficient catalyst separation and recycle. For example, ibuprofen was prepared, in 97.5% selectivity, by carbonylation of 1-(4-isobutylphenyl)ethanol (p-IBPE) in the presence of 1% Pd/ $\gamma$ -alumina/PPh<sub>3</sub>/p-TSA/LiCl/H<sub>2</sub>O in Me Et ketone at 115°, with 98% conversion of p-IBPE. 2-Phenylpropionic acid was prepared, in 98.3% selectivity, by hydrocarboxylation of styrene in the presence of Pd/PPh<sub>3</sub>/p-TSA/LiCl/H<sub>2</sub>O.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:465590 CAPLUS

DOCUMENT NUMBER: 133:43327

TITLE: Method for preparing (S)- $\alpha$ -arylpropionic acid and its methyl ester by asymmetric carbonylation of  $\alpha$ -arylethanol

INVENTOR(S): Xie, Baohan; Xia, Chungu; Kou, Yuan; Yin, Yuanqi; Lu, Shijie

PATENT ASSIGNEE(S): Lanzhou Inst. of Chemical Physics, Chinese Academy of Sciences, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 8 pp. CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1221729	A	19990707	CN 1997-125640	19971230
PRIORITY APPLN. INFO.:			CN 1997-125640	19971230
OTHER SOURCE(S):		CASREACT 133:43327; MARPAT 133:43327		

AB (S)- $\alpha$ -Arylpropionic acid (aryl = Ph, isobutylphenyl, or 6-methoxy-2-naphthyl) or its Me ester are prepared by carbonylation of  $\alpha$ -arylethanol with CO in solvent system in the presence of catalyst system at 90-130° and 6-10 MPa for 10-20 h. The catalyst system is composed of PdCl<sub>2</sub>(DDPPI)

(DDPPI = 1,4:3,6-dianhydro-2,5-di(diphenylphosphinyl)-iditol) as main catalyst, Cu<sup>2+</sup> as co-catalyst, and water-soluble organic acidic medium. The solvent is composed of acetophenone, dioxane, or butanone, and water or methanol as co-solvent. The Cu<sup>2+</sup> is selected from CuCl<sub>2</sub>, Cu(OAc)<sub>2</sub>, and their hydrate; and the organic acid from trifluoroacetic acid, methanesulfonic acid, benzenesulfonic acid, and toluenesulfonic acid. The mole ratio of Cu to Pd is 1-5, that of Pd to  $\alpha$ -arylethanol is 0.001-0.05, and that of organic acid to  $\alpha$ -arylethanol is 0.1-1.0.

L14 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:425444 CAPLUS

DOCUMENT NUMBER: 133:17283

TITLE: Synthesis of  $\alpha$ -arylpropionic acids by carbonylation

INVENTOR(S): Xie, Baohan; Xia, Chungu; Kou, Yuan; Yin, Yuan

PATENT ASSIGNEE(S): Lanzhou Inst. of Chemical Physics, Chinese Academy of Sciences, Peop. Rep. China

SOURCE: Faming Zhuanti Shenqing Gongkai Shuomingshu, 8 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1221728	A	19990707	CN 1997-125639	19971230
CN 1059890	B	20001227		

PRIORITY APPLN. INFO.: CN 1997-125639 19971230

OTHER SOURCE(S): CASREACT 133:17283; MARPAT 133:17283

AB Title comds. MeCHRCO<sub>2</sub>H (R = Ph, 4-Me<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, 6-methoxy-2-naphthyl) are prepared by reducing RCO<sub>2</sub>H (I) with H<sub>2</sub> in the presence of 5-10% Pd/C in THF at 50° and H<sub>2</sub> pressure of 0.5 MPa to obtain MeCHROH, adding phosphines, and carbonylating with CO in THF/HCl at 100-150° and CO pressure of 6-10 MPa for 12-28 h. The mole ratio of Pd to I is 0.01-0.05, and that of Pd to phosphines is 1:1.0-2.5. The phosphine is selected from triphenylphosphine, trinaphthylphosphine, and naphthylidiphenylphosphine.

L14 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:476645 CAPLUS

DOCUMENT NUMBER: 122:281365

TITLE: Application of chemical cytochrome P-450 model systems to studies on drug metabolism-VIII. Novel metabolism of carboxylic acids via oxidative decarboxylation

AUTHOR(S): Komuro, Masakatsu; Higuchi, Tsunehiko; Hirobe, Masaaki

CORPORATE SOURCE: Fac. Pharmaceutical Sciences, Univ. Tokyo, Tokyo, 113, Japan

SOURCE: Bioorganic & Medicinal Chemistry (1995), 3(1), 55-65

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The oxidative decarboxylation of carboxylic acids by the chemical cytochrome P 450 model and rat liver microsomal systems was investigated. In the

chemical system using meso-tetrakis(pentafluorophenyl)porphyrin iron chloride [Fe(TPPFP)Cl] with iodosylbenzene (PhIO),  $\alpha$ -arylcarboxylic acids and  $\alpha,\alpha,\alpha$ -trisubstituted acetic acids are converted to the corresponding one-carbon-reduced alc. and carbonyl derivs. via oxidative decarboxylation. These products were then used as stds. to identify the metabolites in vivo and in vitro. Biliary excretion of the one-carbon-reduced derivative and the carbonyl derivative in bile duct-cannulated rats after oral administration of ketoprofen amounted to 0.22 and 0.03% of the dose, resp. In the case of indomethacin, the one-carbon-reduced derivative and the carbonyl derivative were detected as metabolites in the rat liver microsomal system, in yields of 2.8 and 0.29%, resp. Further, the yields of these two indomethacin metabolites were decreased in the presence of SKF-525A. Thus, these metabolites were formed by cytochrome P 450-dependent reactions. The ketoprofen and indomethacin metabolites had moderate to strong inhibitory activities on arachidonic acid-induced platelet aggregation and cyclooxygenase activity in vitro, comparable to those of the parent compds.

L14 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:354691 CAPLUS

DOCUMENT NUMBER: 123:55486

TITLE: Process for preparing optically active 2-aryl  
-alkanoic acids, in particular 2-aryl  
-propionic acids

INVENTOR(S): Paradies, Henrich H.; Hanna, Samir B.; Schneider, Bernd

PATENT ASSIGNEE(S): Medice Chem.-Pharm. Fabrik Putter GmbH and Co. KG,  
Iserlohn, Germany, Germany

SOURCE: U.S., 41 pp. Cont.-in-part of U.S. Ser. No. 352,269,  
abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5380927	A	19950110	US 1990-524377	19900516
US 5266723	A	19931130	US 1990-486979	19900227
CA 2016887	A1	19901116	CA 1990-2016887	19900516
CA 2016888	A1	19901116	CA 1990-2016888	19900516
NO 9002190	A	19901119	NO 1990-2190	19900516
AU 9055091	A	19901122	AU 1990-55091	19900516
AU 9055092	A	19901122	AU 1990-55092	19900516
AU 643210	B2	19931111		
DE 4015794	A1	19901129	DE 1990-4015794	19900516
WO 9014073	A1	19901129	WO 1990-EP789	19900516
W: FI, HU, JP, KR, NO, SU				
DE 4015781	A1	19901213	DE 1990-4015781	19900516
ZA 9003756	A	19910227	ZA 1990-3756	19900516
ZA 9003759	A	19910227	ZA 1990-3759	19900516
HU 54610	A2	19910328	HU 1990-3057	19900516
CN 1050373	A	19910403	CN 1990-103564	19900516
CN 1053010	A	19910717	CN 1990-103225	19900516

HU 56263	A2	19910828	HU 1990-4479	19900516
JP 03209344	A	19910912	JP 1990-128061	19900516
JP 03506040	T	19911226	JP 1990-507349	19900516
DD 300404	A5	19920611	DD 1990-340734	19900516
DD 300688	A5	19920702	DD 1990-340735	19900516
AT 129230	T	19951115	AT 1990-109235	19900516
NO 9005132	A	19901129	NO 1990-5132	19901127
AU 9339878	A	19930819	AU 1993-39878	19930528
PRIORITY APPLN. INFO.:			US 1989-352269	B2 19890516
			WO 1990-EP789	W 19900516

OTHER SOURCE(S): MARPAT 123:55486

AB A chemical process is disclosed for the preparation of a pharmaceutically active

compound in stereospecific form selected from the group of compds. having the formula  $\text{ArCHRCO}_2\text{H}$  and their physiol. compatible salts and esters, wherein R is a lower alkyl and Ar a monocyclic, polycyclic or orthocondensed polycyclic aromatic group having up to 12 carbon atoms in the aromatic ring, and which may be substituted or unsubstituted in the aromatic ring, comprising the steps: (a) reacting a carbonyl substrate of the formula  $\text{ArCOR}$  where R and Ar have the meanings given above, with a stereospecific reagent in the presence of a reducing agent and an organic solvent to form the enantiomeric carbinol and (b) reacting the enantiomeric carbinol obtained to form the end product. Crystallog. data were reported for the 1:1 hydrogen-bonded complex between 1-amino-1-deoxy-D-glucitol and R-(-)-ibuprofen as a compound suitable for pharmaceutical use. Scattering data were also reported for melt formulations containing S-(+)-ibuprofen and polyoxyethylenoxide resin as a mol. solution, indicating retention of configuration upon pharmaceutical formulation. Thus, e.g., reaction of 1-(4-[2-methylpropyl]phenyl)ethanone with  $\text{R}^*\text{OH} \cdot \text{LiAlH}_4$  complex [ $\text{R}^*\text{OH} = (+)-(2\text{S},3\text{R})$ -4- dimethylamino-3-methyl-1,2-diphenyl-2-butanol] at  $0^\circ$  in presence of mol. sieves afforded the R-(+)-carbinol in 98% e.e. and almost quant. chemical yield. Reaction with aged reduction agent at  $20^\circ$  afforded S-(-)-carbinol in 97% e.e. and 95% chemical yield.